

CLAIMS

What is claimed is:

- 1 ~~1.~~ A cordless communication system, comprising:
2 a central unit; and
3 at least two remote units, said at least two remote units being capable of radio frequency
4 communication with said central unit and other of said at least two remote units;
5 wherein said central unit is capable of assigning a dedicated communication channel for
6 enabling direct communication between selected ones of said at least two remote
7 units.
- 1 2. The cordless communication system of claim 1, wherein each of said at
2 least two remote units is further capable of communication with another of said at least
3 two remote units via a radio frequency connection relayed through said central unit.
- 1 3. The cordless communication system of claim 2, wherein each of said
2 remote units synchronizes to said central unit.
- 1 4. The cordless communication system of claim 1, wherein a first of said at
2 least two remote units is capable of providing a request to said central unit for a direct
3 connection with a second of said at least two remote units.
- 1 5. The cordless communication system of claim 4, wherein upon receiving
2 a request from said first remote unit, said central unit assigns a dedicated communication
3 channel for enabling direct communication between said first and second remote units,
4 said second remote unit synchronizing to said first remote unit.
- 1 6. The cordless communication system of claim 1, wherein said radio
2 communication comprises time division duplex connections utilizing a time division

3 multiple access (TDMA) scheme.

1 7. The cordless communication system of claim 1, wherein said radio
2 communication comprises a frequency hopping spread spectrum (FHSS) scheme and said
3 central unit assigns the dedicated communication channel by assigning a specific hop
4 sequence to selected ones of said at least two remote units.

1 8. The cordless communication system of claim 1, wherein said radio
2 frequency communication comprises direct sequence spread spectrum (DSSS) scheme
3 and said central unit assigns said dedicated communication channel by assigning a
4 specific spreading code to selected ones of said at least two remote units.

1 9. The cordless communication system of claim 1, wherein said central unit
2 provides an interface for interfacing the communication system with a network.

1 10. -- The cordless communication system of claim 9, wherein the network
2 comprises at least one of a public switched telephone network (PSTN), an integrated
3 services digital network (ISDN), the Internet, and an Intranet.

1 11. A cordless communication system, comprising:
2 a central unit; and
3 at least two remote units capable of radio frequency communication with said central
4 unit;
5 wherein each of said at least two remote units is capable of communication with another
6 of said at least two remote units via a radio frequency connection relayed through
7 said central unit; and
8 wherein a first of said at least two remote units is further capable of communication with
9 a second of said at least two remote units via a dedicated radio frequency
10 connection assigned by said central unit for enabling direct communication
11 between said first remote unit and said second remote unit.

1 12. The cordless communication system of claim 11, wherein each of said
2 remote units synchronizes to said central unit.

1 13. The cordless communication system of claim 11, wherein a first of said
2 at least two remote units is capable of providing a request to said central unit for a direct
3 connection with a second of said at least two remote units.

1 14. The cordless communication system of claim 13, wherein upon receiving
2 a request from said first remote unit, said central unit assigns a dedicated communication
3 channel for enabling direct communication between said first and second remote units,
4 said second remote unit synchronizing to said first remote unit.

1 15. The cordless communication system of claim 11, wherein said radio
2 communication comprises time division duplex connections utilizing a time division
3 multiple access (TDMA) scheme.

1 16. The cordless communication system of claim 11, wherein said radio
2 communication comprises a frequency hopping spread spectrum (FHSS) scheme and said

3 central unit assigns the dedicated communication channel by assigning a specific hop
4 sequence to selected ones of said at least two remote units.

1 17. The cordless communication system of claim 11, wherein said radio
2 frequency communication comprises direct sequence spread spectrum (DSSS) scheme
3 and said central unit assigns said dedicated communication channel by assigning a
4 specific spreading code to selected ones of said at least two remote units.

1 18. The cordless communication system of claim 11, wherein said central unit
2 provides an interface for interfacing the communication system with a network.

1 19. The cordless communication system of claim 18, wherein the network
2 comprises at least one of a public switched telephone network (PSTN), an integrated
3 services digital network (ISDN), the Internet, and an Intranet.

1 20. A method for providing direct radio frequency communication between
2 remote units in a cordless communication system, comprising:
3 providing a request to a central unit for direct radio frequency communication between
4 a first remote unit and a second remote unit; and
5 initiating a direct connection between the first remote unit and the second remote unit via
6 a dedicated communication channel assigned to the first remote unit and the
7 second remote unit by the central unit.

1 21. The method of claim 20, further comprising:
2 determining that communication between the first remote unit and the second remote unit
3 has ended; and
4 terminating the direct connection between the first remote unit and the second remote
5 unit.

1 22. The method of claim 21, wherein determining that communication
2 between the first remote unit and the second remote unit has ended comprises providing
3 an indication to the central unit that communication between the first remote unit and the
4 second remote unit has ended.

1 23. The method of claim 21, wherein initiating a direct connection between
2 the first remote unit and the second remote unit comprises assigning the dedicated
3 communication channel.

1 24. The method of claim 23, wherein radio communication within the
2 cordless communication system comprises a frequency hopping spread spectrum (FHSS)
3 scheme and assigning the dedicated communication channel comprises assigning a
4 specific hop sequence to the first and second remote units.

